0017

Original 015/032 #2
cc: D. Haddock
L. Braxton

United States Department of Agriculture | Forest Service | Manti-La Sal National Forest | 599 West Price River Dr. Price, Utah 84501

Reply to: 2820

Date: March 17, 1992

Daron R. Haddock, Permit Supervisor
Utah Department of Natural Resource
Division of Oil, Gas, and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Dear Mr. Haddock,

RE: Review of Revised State Permit Package, Crandall Canyon Mine (Chapter 14, State Leases ML-21568 and ML-21569), ACT/015/032, Folder #2, Emery County, Utah.

We have reviewed the revised Chapter 14 of the Permit Application pertaining to the state leases. The revised package does not adequately address our concerns about extending subsidence onto Forest Service surface and fails to resolve most of the issues we raised in our August 21, 1991 letter regarding Genwal's response to stipulations on these leases. These issues include potential impacts to ground and surface waters on adjacent Federal lands, and failure to identify plans to monitor and mitigate these effects. (See attached discussion which details our concerns).

The revised plan also does not adequately address potential impacts to Federal coal reserves adjacent to the state leases. In particular, no barrier is shown along the north side of Section 36, T 15 S, R 6 E. With no barrier, adjacent Federal coal would be sterilized. We are in consultation with BLM on this issue.

The subsidence buffer zone on Federal lands is not appropriate as displayed as it does not correspond to the anticipated zone of subsidence. Additionally, we do not see a need for separately permitting subsidence impacts adjacent to Federal coal leases because the Federal lease provides the right to impact Federal surface.

Until we receive sufficient information regarding potential impacts to federal resources adjacent to the state leases, we do not consent to mining that could impact Federal surface or minerals. We are open to discussing options to facilitate continuation of mining.

for
George A. Morris
Forest Supervisor

Enclosure

cc:
P.Kilbourne
D-3

Review of Revised State Permit Package, Crandall Canyon Mine
(Chapter 14, State Leases ML-21568 and ML-21569),
Specific Comments, March 17, 1992

Ground Water Hydrology (Stipulation R614-301-700 sf)

The groundwater hydrogeology of the lease area and adjacent areas has still not been adequately characterized. Genwal acknowledges the need for a more accurate determination of the potentiometric surface, hydraulic gradient, and mine inflow rates. We understand that data from two recently drilled in-mine wells indicates that the potentiometric surface is well below the coal zone. This information should be presented in the mine plan.

The plan acknowledges that East Mountain is an important source of water for Upper Joe's Valley, yet no monitoring is proposed. Statements are made that any lost water will be replaced. Monitoring is necessary to establish whether waters have been lost. Groundwater monitoring of only springs SP 2-24 and 2-9 is insufficient. The Forest Service has claimed water rights on numerous springs in Upper Joe's Valley, immediately west of the state leases. Additionally, no springs are proposed for monitoring within the state leases. Yet, the leases contain springs with perennial flows such as SP2-35, SP1-13a, SP1-13b, and SP1-10b. Many other springs within the state leases have strong intermittent flow such as SP1-18 and SP1-19 which yielded 50 and 30 gallons per minute respectively in June 1990. These springs are likely to contribute substantially to the flow of the major streams of the area including Crandal and Blind Creeks and should be monitored. Figure 14-2 fails to identify an important spring along the east section line, section 2. It is identified as Forest Service Water Right 694. Genwal should develop an adequate plan to monitor effects on water resources that may be contributing to ground and surface flow on National Forest System Lands.

Section 14.5.1.2 makes the case that mine dewater would not effect aquifers perched in formations above the potential mine workings because of permeability barriers. However, the potential for subsidence induced fractures to breach these permeability barriers and dewater these overlying aquifers needs to be addressed. This is of particular concern in the Joe's Valley Fault zone in which fault blocks could be locally remobilized by subsidence.

Surface Water Information (Stipulation 724.200-SF)

The reorientation of mine panels and establishment of stream buffer zones along the South Fork of Horse Canyon, Blind Canyon, and North and South forks of Crandall Canyon should provide adequate protection of these waters.

Inadequate study has been conducted on the west slope of East Mountain to determine if any perenniel streams or important intermittent streams exist in this area. Last summer we identified two such streams flowing down the west slope of East Mountain in section 35 just north of state lease ML-21568. Flow was sufficient to suggest that these streams may be perennial. These streams flow directly into a wetland in Upper Joe's Valley and are important for maintaining the wetland and flow in Indian Creek. Other streams important to Upper Joe's Valley may be flowing down the west slope of East Mountain on state lease ML-21568 in Section 2 as well. The other canyons on East Mountain should be checked for active streams. Any active streams should be monitored and perenniel streams identified after with two years of monitoring data. The Forest Service requests all data used in characterizing these streams and requests all proposals for retreat mining in these areas.

Section 14.5.1.5 states that only minimal impacts on groundwater resources in the vicinity of the state leases may result. Without adequate characterization of the groundwater of the area, such a statement is speculative. The applicant should state what measures would be taken to protect premining water uses and what measures would be taken to replace water losses as required by R614-301-727.

Land Stability and Erosion

The west slope of East Mountain including state lease ML-21568 has been disrupted by landslides. Most appear to be failures of colluvial materials. Others may be deeper slump features. Mining induced subsidence along the outcrop may trigger additional landslides, especially during wet periods. Accelerated landslide activity and erosion of the slide material would increase down stream sedimentation in Upper Joes Valley. Because of the potential for landslide activity to affect Forest Service Surface, the potential for mining induced slope failure and erosion should be evaluated in the mine plan.

Stipulation R614-301-525 DWD - Subsidence Buffer Zone on Forest Service Surface

BLM, through a telephone communication (Jeff Clausen, 4/14/92), indicated that a minimum barrier of 50 feet is necessary to protect federal coal. Plate 3-3 of the mine plan shows no barrier pillar being left in place along the north side of Section 36, T 15 S, R 6 E adjacent to federal coal. Additionally, the mine plan shows barriers approximately 180 feet wide between panels. Is this the width necessary to maintain safe roof conditions for mining adjacent panels? If so, barriers greater than 50 feet would be needed to prevent sterilization of Federal coal. In any case, the mine plan should be revised to show adequate protection of adjacent Federal coal along the north side of Section 35. So that neither state nor federal coal is impacted inequitably, half of the necessary barrier width should be within the state lease area.

We do not see a need to identify subsidence buffer zones around Federal Coal leases for the purpose of permitting subsidence impacts because the Federal Lease provides the right to impact Federal Surface. These Permit Buffer zones should be removed from the plan. The Permit buffer around the state lease, should, however, be expanded to include the subsidence zone depicted in Figure 14-9. This would require adding areas to the SE 1/4 Section 35, T 15 S, R 6 E and the northern half of Section 11, T 16 S, R 6 E.

Figure 14-9 showing the zone of subsidence does not appear substantially different from previous versions of this plate. What angle of draw is this figure based on? Section 14.3.2.1.2 Retreat Mining applies a 20 degree angle of draw to delineate stream buffer zones, but states that a 30 degree angle of draw was used to generate the subsidence zone around the lease. Then the conclusion is made that 20 degrees represents the maximum angle of draw. Why would two different angles be used?

Additional Comments

The following changes in text would improve clarity of the MRP. On page 14-29, section 14.5.2.3, paragraph 2, the phrase, "what reaches of these streams of perennial", should say "what reaches of these stream are perennial." On page 14-12, section 14.4.1, the orientation of stratigraphic dip should be given.

In scoping on our environmental analysis for the proposed subsidence zone, we received a comment from DWR (attached) recommomending application of Forest Service stipulations on the state leases. We concur with this recommendation because it would provide consistency of management on both state and federal coal lands.

Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Timothy H. Provan
Division Director

State of Utah

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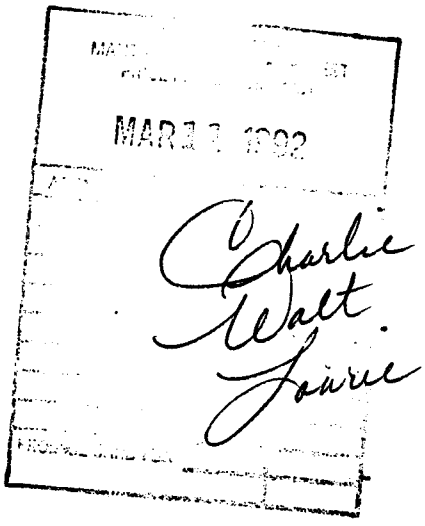

March 10, 1992

Mr. Charles J. Jankiewicz, District Ranger
Manti-LaSal National Forest
Price Ranger District
599 West Price River Drive
Price, Utah 84501

Dear Charles:

The Division of Wildlife Resources (DWR) has reviewed the revisions to Genwal's Crandall Canyon Mining Permit. In conjunction with these revisions, DWR has reviewed the proposed stipulations outlined in Appendix B of the Forest Plan.

DWR would like to emphasize the importance of this area to a wide variety of wildlife species. We are particularly concerned with the effect of subsidence on perennial water sources such as streams, springs, and seeps. These water sources support riparian zones, provide habitat for fish and other aquatic life, and provide a source of drinking water to a wide variety of wildlife. Subsidence can also affect terrestrial wildlife habitats. Of particular concern is the potential loss of nesting habitat for a variety of raptors due to escarpment failure.

DWR supports the proposed action outlined in the scoping document if Genwal adheres to the Forest Service stipulations. We strongly support those stipulations calling for inventory and monitoring programs. If monitoring of subsidence levels, water

sources and critical habitats reveals any problems, it is imperative that appropriate and timely action take place to alleviate and minimize the problem. Mining activities should be inspected to determine compliance.

We appreciate the opportunity to comment on this action. If we can be of further assistance, please contact Ken Phippen, Regional Habitat Manager (637-3310).

Sincerely,

Miles Moretti
Regional Supervisor

SR/lcl

Copy: Ralph Miles, DWR
Rod Player, USFS
Daron Haddock, DOGM